STIC Search Report
EIC 2800

STIC Database Tracking Number: 123721

TO:	From:
Wasseem Hamdan Location: 9A19 Art Unit : 2854 Tuesday, June 15, 2004 Case Serial Number: 10/619996	Bode Fagbohunka Location: EIC 2800 Jeff 4A58 Phone: 571-272-2541 bode.fagbohunka@uspto.gov

Search Notes

Examiner **Wasseem Hamdan**

Please find attached the results of your search for **10/619996** The search was conducted using the standard collection of databases on dialog for EIC 2800. The tagged references appear to be the closest references located during our search.

If you would like a re-focus please let me know or if you have any questions regarding the search results please do not hesitate to contact me.

Bode Fagbohunka

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Set     Items   Description
S1       2068   AU= (KERSCH, R? OR KERSCH R? OR PETERSEN G? OR PETERSEN, G-
            ?)
S2        446   LATERAL(3N)REGIST???????
S3          1   S1 AND S2
S4       3085   IC=B41F-033/14
S5          2   S1 AND S4
S6          1   S5 NOT S3
S7   11804835   SET OR SETTING OR SETS OR PLAC???? OR POSITION? OR CONSIGN?
              OR SITUAT?
S8    1248314   PRINT?????
S9    5531137   PRESS?????
S10   1021827   WEB? ? OR ROLL
S11    939211   BEAR????
S12  12840648   FIRST? OR SECOND???? OR INITIAL? OR PRIMAR???? OR FLOAT?
S13       232   S2 AND S7
S14        23   S13 AND S8 AND S9
S15     33929   S12(6N)S11
S16         3   S14 AND S15
S17         3   S16 NOT S5
S18         3   RD (unique items)
S19        20   S14 NOT S18
? show files
File   2:INSPEC 1969-2004/Jun W1
         (c) 2004 Institution of Electrical Engineers
File   6:NTIS 1964-2004/Jun W2
         (c) 2004 NTIS, Intl Cpyrght All Rights Res
File   8:Ei Compendex(R) 1970-2004/Jun W1
         (c) 2004 Elsevier Eng.  Info. Inc.
File  34:SciSearch(R) Cited Ref Sci 1990-2004/Jun W1
         (c) 2004 Inst for Sci Info
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
File  99:Wilson Appl. Sci & Tech Abs 1983-2004/May
         (c) 2004 The HW Wilson Co.
File  94:JICST-EPlus 1985-2004/May W4
         (c)2004 Japan Science and Tech Corp(JST)
File  92:IHS Intl.Stds.& Specs. 1999/Nov
         (c) 1999 Information Handling Services
File 144:Pascal 1973-2004/Jun W1
         (c) 2004 INIST/CNRS
File 202:Info. Sci. & Tech. Abs. 1966-2004/May 14
         (c) 2004 EBSCO Publishing
File 647:CMP  Computer Fulltext 1988-2004/Jun W1
         (c) 2004 CMP Media, LLC
File 696:DIALOG Telecom. Newsletters 1995-2004/Jun 14
         (c) 2004 The Dialog Corp.
File  35:Dissertation Abs Online 1861-2004/May
         (c) 2004 ProQuest Info&Learning
File  65:Inside Conferences 1993-2004/Jun W2
         (c) 2004 BLDSC all rts. reserv.
File 103:Energy SciTec 1974-2004/Jun B1
         (c) 2004 Contains copyrighted material
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200437
         (c) 2004  Thomson Derwent
File 347:JAPIO Nov 1976-2004/Feb(Updated 040607)
         (c) 2004 JPO & JAPIO
File 239:Mathsci 1940-2004/Jul
         (c) 2004 American Mathematical Society
File  95:TEME-Technology & Management 1989-2004/May W4
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3/9/1 **(Item 1 from file: 347)**
DIALOG(R)File 347:JAPIO

07938070 **Image available**
DEVICE FOR ADJUSTING **LATERAL REGISTRATION** TO BE USED FOR PRINTING APPARATUS OF ROTARY PRESS

PUB. NO.: 2004-050829 [JP 2004050829 A]
PUBLISHED: February 19, 2004 (20040219)
INVENTOR(s): **KERSCH ROBERT**
PETERSEN GODBER
APPLICANT(s): MAN ROLAND DRUCKMAS AG
APPL. NO.: 2003-158439 [JP 2003158439]
FILED: June 03, 2003 (20030603)
PRIORITY: 02 10232026 [DE 10232026], DE (Germany), July 16, 2002 (20020716)
INTL CLASS: B41F-033/14

ABSTRACT

PROBLEM TO BE SOLVED: To provide a device for adjusting **lateral registration** to be used for the printing apparatus of a rotary press, which excels in correctness regardless of its simple structure and enables fast and comparatively large movement of a plate cylinder in an axis direction for releasing connection.
SOLUTION: A working cylinder 30 to be operated with a pressure medium is used to arrange a bearing stand 17 to move back and forth freely in the axis direction. For registering laterally, the bearing stand 17 is allowed to be pressed against a freely adjustable stopper 35 with the working cylinder 30. The bearing stand 17 is positioned on the stopper 35 without any play using the adjusting pressure of the working cylinder 30 in the adjusting direction 27. The position of the stopper 35 in the axis direction is made open loop controllable and/or close loop controllable with control sections 43, 44 connected to at least one optical scanning system 15, 16 scanning a web paper 13.

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6/9/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015934777 **Image available**
WPI Acc No: 2004-092618/200410
XRPX Acc No: N04-074203

Side register setting device for printing mechanism of rotary printing machine with axial adjustment of bearing block for printing cylinder and axial stop for bearing block

Patent Assignee: MAN ROLAND DRUCKMASCHINEN AG (MAUG)
Inventor: **KERSCH R** ; **PETERSEN G**
Number of Countries: 033 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 10232026	B3	20040108	DE 1032026	A	20020716	200410	B
EP 1382447	A1	20040121	EP 200315430	A	20030709	200410	
CA 2435174	A1	20040116	CA 2435174	A	20030715	200413	
JP 2004050829	A	20040219	JP 2003158439	A	20030603	200414	

Priority Applications (No Type Date): DE 1032026 A 20020716
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 10232026	B3		11	B41F-013/14	
EP 1382447	A1	G		B41F-013/14	
Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
CA 2435174	A1	E		B41F-013/12	
JP 2004050829	A		10	B41F-033/14	

Abstract (Basic): DE 10232026 B3

NOVELTY - The side register setting device uses a linear drive with a pneumatic or hydraulic cylinder (30) for movement of a first bearing block (17) for a printing cylinder (10) relative to a second bearing block (18), with the axial position of an adjustable stop for the first bearing block regulated by a control (44) in dependence on the detected register error provided by an optical scanning device.

USE - The side register setting device is used for a printing mechanism in a rotary printing machine.

ADVANTAGE - Rapid adjustment of side register via positioning drive with operating rate matched to printing rate.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic representation of a printing cylinder provided with a side register setting device.

Printing cylinder (10)
First bearing block (17)
Second bearing block (18)
Pneumatic or hydraulic cylinder (30)
Control (44)
pp; 11 DwgNo 3/6

Title Terms: SIDE; REGISTER; SET; DEVICE; PRINT; MECHANISM; ROTATING; PRINT ; MACHINE; AXIS; ADJUST; BEARING; BLOCK; PRINT; CYLINDER; AXIS; STOP; BEARING; BLOCK
Derwent Class: P71; P74; S06
International Patent Class (Main): B41F-013/12; B41F-013/14; **B41F-033/14**
International Patent Class (Additional): **B30B-009/00** ; B41F-021/14
File Segment: EPI; EngPI
Manual Codes (EPI/S-X): S06-C03A
?

18/9/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

010182057 **Image available**
WPI Acc No: 1995-083310/199512
Related WPI Acc No: 1997-395467
XRPX Acc No: N95-066090

Printing press **with interchangeable cylinders and rollers - has cutting** positions **in cylinders and rollers for alignment and grab transferring them between bearings and changeover mechanism**

Patent Assignee: MAN ROLAND DRUCKMASCH AG (MAUG); MAN ROLAND DRUCKMASCHINEN AG (MAUG)
Inventor: GOTTLING J; SCHNEIDER J; GOETTLING J
Number of Countries: 009 Number of Patents: 008
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 639452	A1	19950222	EP 94111677	A	19940727	199512	B
DE 4328058	A1	19950223	DE 4328058	A	19930820	199513	
CA 2130063	A	19950221	CA 2130063	A	19940812	199521	
DE 9421819	U1	19960912	DE 94U21819	U	19940727	199642	
			EP 94111677	A	19940727		
EP 639452	B1	19970903	EP 94111677	A	19940727	199740	
			EP 97101403	A	19940727		
DE 59403944	G	19971009	DE 503944	A	19940727	199746	
			EP 94111677	A	19940727		
US 5878666	A	19990309	US 94294136	A	19940822	199917	
			US 96730754	A	19961015		
CA 2130063	C	20010102	CA 2130063	A	19940812	200104	

Priority Applications (No Type Date): DE 4328058 A 19930820
Cited Patents: 04Jnl.Ref; CH 314349; EP 453973; JP 4037543; JP 5177808; JP 61158449; JP 63154349; US 3147702; WO 9418007; JP 4037543; JP 5177808; WO 9207716
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 639452	A1	G	26	B41F-013/24	
Designated States (Regional): CH DE FR GB IT LI SE					
DE 4328058	A1		23	B41F-013/08	
CA 2130063	A			B41F-007/02	
DE 9421819	U1		42	B41F-013/24	Application no. EP 94111677
EP 639452	B1	G	21	B41F-013/24	Related to application EP 97101403
					Related to patent EP 788880
Designated States (Regional): CH DE FR GB IT LI SE					
DE 59403944	G			B41F-013/24	Based on patent EP 639452
US 5878666	A			B41F-027/06	CIP of application US 94294136
CA 2130063	C	E		B41F-007/02	

Abstract (Basic): EP 639452 A

The **press** (26) has first cylinders and rollers (30-32) removable from **bearings** for replacement by **second** ones. The **first** ones have fixed cutting points for alignment in the later and/or peripheral direction in the **bearings** . The **press** has a **first** grab mechanism (34,35) for cylinder and roller changeover, delivering the first ones to a changeover mechanism (36), and extracting the second ones from the latter and inserting in the bearings.

A lifter in the changeover mechanism can transfer rollers and cylinders from the first grab mechanism to a second one, and also the second cylinders and rollers to the first grab mechanism from the second one.

ADVANTAGE - Easy cleaning and changeover between different

printing operations.
Dwg.8/16

Abstract (Equivalent): EP 639452 B

Printing machine (16) having at least one forme cylinder (95) carrying a **printing** forme in the form of a sleeve (96) of which forme cylinder can be exchanged by a replacement sleeve by removing it from the casing, the forme cylinder (95) being inserted in the **printing** machine (16) in a mounting (50), from which it can again be removed, characterised in that the forme cylinder (95) has fixedly predetermined interfaces or adapters for th accurate mounting (50) on the **printing** machine (16) with respect to **lateral** and peripheral **register** , the **printing** machine (16) has a removal device (90) for removing th forme cylinder (95) from its mounting (50), wherein in the removal device (90) for exchanging the sleeve (96) there is a holding means (92) for holding the forme cylinder (95) on one of its journals (520) whilst the other journal (520) is free, and wherein a sleeve-exchanging device removes the sleeve (96) from the forme cylinder (95) and exchangers it for the replacement sleeve.
Dwg.1/12

Title Terms: **PRINT** ; **PRESS** ; INTERCHANGE; CYLINDER; ROLL; CUT; **POSITION** ; CYLINDER; ROLL; ALIGN; GRAB; TRANSFER; BEARING; CHANGEOVER; MECHANISM

Derwent Class: P74

International Patent Class (Main): B41F-007/02; B41F-013/08; B41F-013/24; B41F-027/06

International Patent Class (Additional): B41F-005/18; B41F-005/22; B41F-007/12; B41F-009/18; B41F-013/10; B41F-030/40

File Segment: EngPI

18/9/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

008482222 **Image available**

WPI Acc No: 1990-369222/199050

XRPX Acc No: N90-281513

Rotary printing **machine adjustment system - is fitted at drive side, with helical gear on bearing of form cylinder journal**

Patent Assignee: MAN ROLAND DRUCKMASCH AG (MAUG)

Inventor: KNAUER P

Number of Countries: 009 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 3918128	A	19901206	DE 91812	A	19890603	199050	B
EP 401656	A	19901212	EP 90110238	A	19900530	199050	
CA 2017373	A	19901203				199109	
US 5092242	A	19920303	US 90528589	A	19900524	199212	
DE 3918128	C	19921001	DE 3918128	A	19890603	199240	
CA 2017373	C	19930413	CA 2017373	A	19900523	199320	
EP 401656	B1	19940420	EP 90110238	A	19900530	199416	
DE 59005406	G	19940526	DE 505406	A	19900530	199422	
			EP 90110238	A	19900530		

Priority Applications (No Type Date): DE 3918128 A 19890603; DE 91812 A 19890603

Cited Patents: A3...9126; NoSR.Pub; US 3565006; US 4006685; DE 1290941; US 4709634

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 401656	A				

Designated States (Regional): CH DE FR GB IT LI SE
US 5092242 A 7
DE 3918128 C 5 B41F-013/14
EP 401656 B1 G 7 B41F-013/14
Designated States (Regional): CH DE FR GB IT LI SE
DE 59005406 G B41F-013/14 Based on patent EP 401656
CA 2017373 C B41F-013/14

Abstract (Basic): DE 3918128 A

A rotary **printing** machine is provided with means to adjust the **lateral** and axial **register** of the plate cylinder (20) with respect to the blanked cylinder (18). The stub shaft (19) of the plate cylinder (20) has a bearing (31) on which a helical spur gear (12) is mounted. The stub shaft (19) is also fitted with a straight spur gear (13).

A stub shaft (22) mounted on the **printing** machine side plate (21) carries a helical spur gear (16) and a straight spur gear (15) which mesh with the corresp. gears (12) and (13) of the plate cylinder stub shaft. The circumferential register is adjusted by moving the double gear (15,16) axially by the screw drive (26). The lateral adjustment is by means of the second screw drive (29).

USE - **Printing** machines. (5pp Dwg.No. 2/2)

Abstract (Equivalent): DE 3918128 C

Adjuster controls side and circumference register settings by axial movement and twisting of the cylinder using helical gear drive train. The adjuster unit should be arranged on the drive side (II) of the machine so the helical gear (12) on the frame-fitted journal (19) meshes with a helical rim gear (16) fitted on frame journal (22). Rim gear (15) co-rotatably engaged with gear rim (16) drives a gear (13) fitted co-rotatably on journal (19). The two gear rims (15, 16) are moved axially by the adjuster (26) and the plate cylinder (20) by adjuster (29). Rim gear (16) rotates as it adjusts and in so doing moves gear (13) round via the meshing rim gear (15). USE/ADVANTAGE - **Printing** , offset rotaries. Coordinated adjustment off meshing rim gears and output gearing leaves service side free for plate and sleeve etc. handling.

(Dwg.2/2

Abstract (Equivalent): EP 401656 B

Device for adjusting the side and circumferential register by displacement and rotation of a cylinder in a web-fed rotary **press** , in particular in a web-fed rotary **press** with sleeve-like **press** forme and **press** forme transfer carriers, having a helically-toothed drive gear train, characterised in that the device for **setting** the side and circumferential register is arranged on the drive side II of the **press** in such a way that the helically toothed drive gear wheel (12) fitted by way of a bearing (31) on the axle journal (19) of the forme plate cylinder (20) meshes with a further helically-toothed gear wheel (16) which is journalled on a journal (22) fixed to the frame and is connected non-rotatably to a straight-toothed gear wheel (15) which drives a further straight-toothed gear wheel (13) non-rotatably fitted on the axle journal (19), and that the straight-toothed gear wheel (15) and the further helically-toothed gear wheel (16) are axially displaceable by means of a device (26) and the plate cylinder (20) is axially displaceable by means of a further device (29), the further helically-toothed gear wheel (16) being rotated by its displacement whereby the forme and plate cylinder (20) can be rotated by the straight-toothed gear wheel (15) and the further straight-toothed gear wheel (13).

(Dwg.1/2

Abstract (Equivalent): US 5092242 A

To provide a clean operator side of a **printing** machine, the

circumferential and **lateral** **register** adjustment of a plate cylinder is located on the machine or drive side of the machine and is formed by a special gearing. A first gear is rotatable on an axially shiftable stub shaft of the plate cylinder by being **positioned** on a **bearing** , is driven from a **second** gear which may also drive an offset blanket cylinder. The first gear is in meshing engagement with a dual gear, having third and fourth gearings. The first, second and third gears are spiral or inclined. The fourth gear, which meshes with an axial fixed fifth gear splined to the shaft to the cylinder, is formed with axial teeth. USE - For offset **printing** machines.

(7pp

Title Terms: ROTATING; **PRINT** ; MACHINE; ADJUST; SYSTEM; FIT; DRIVE; SIDE; HELICAL; GEAR; BEARING; FORM; CYLINDER; JOURNAL
Derwent Class: P74
International Patent Class (Main): B41F-013/14
International Patent Class (Additional): B41F-013/24
File Segment: EngPI

18/9/3 (Item 3 from file: 350)

008144196 **Image available**
WPI Acc No: 1990-031197/199005
XRPX Acc No: N90-024024

Continuous rotary printing press **- has hollow cylinders in bearings on shafts adjustable for only limited amount**

Patent Assignee: MAN ROLAND DRUCKMASCH AG (MAUG)
Inventor: KNAUER P
Number of Countries: 009 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 352599	A	19900131	EP 89113129	A	19890718	199005	B
DE 3825600	A	19900208	DE 3825600	A	19880728	199007	
US 5005475	A	19910409	US 89385205	A	19890725	199117	
EP 352599	B1	19930414	EP 89113129	A	19890718	199315	
DE 58904051	G	19930519	DE 504051	A	19890718	199321	
			EP 89113129	A	19890718		
DE 3825600	C2	19930609	DE 3825600	A	19880728	199323	
CA 1322124	C	19930914	CA 606719	A	19890726	199343	

Priority Applications (No Type Date): DE 3825600 A 19880728
Cited Patents: A3...9034; DE 3705477; EP 96563; FR 2350957; FR 2353395; No-SR.Pub; US 4214528
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 352599	A	G	7		
Designated States (Regional): CH DE FR GB IT LI SE					
EP 352599	B1	G	9	B41F-013/00	
Designated States (Regional): CH DE FR GB IT LI SE					
DE 58904051	G			B41F-013/00	Based on patent EP 352599
DE 3825600	C2		7	B41F-013/26	
CA 1322124	C			B41F-005/22	

Abstract (Basic): EP 352599 A

The continuous rotary **printing** **press** without tension duct has cylinders in **bearings** in two side walls. The **first** wall is in several sections, movable apart to allow removal of the **printing** sleeves from the cylinders, while behind the second side wall are

cylinder holders during the removal.

All the cylinders (30,41,54,68) are hollow, rotating in bearings on shafts (27,38,51,63) which can be slid axially and/or turned for only a limited amount. All mechanisms for peripheral, lateral, and diagonal adjustment, together with those driving the cylinders or cutting them in and out, are near the second side wall (2). The first wall (1) contains only bases (13-16) for the shaft ends.

ADVANTAGE - Simple design for full access for sleeve changing, without disturbing settings

Abstract (Equivalent): EP 352599 B

Web-fed **press** for continuously **printing** without using a tensioning channel, having cylinders mounted at least indirectly in a first and a second side wall, the first side wall having several parts, which can be separated to change a sleeve serving as **printing** -image carrier on at least one cylinder and where at each side of the second side wall devices are arranged for supporting the cylinders when the first side wall is separated, characterized in that all cylinders (30, 41, 54, 66) are constructed as hollow bodies, which are rotatably mounted on shafts (27, 38, 51,63) which can only be slightly rotated and/or axially displaced, in that all of the devices serving for circumferential, **lateral** and diagonal **register** adjustment, as well as the drive and the **setting** and withdrawal of the cylinders (30, 41, 54, 66), are arranged near to the second side wall (2) and the first side wall (1) has exclusively bores (13, 14, 15, 16) to incorporate the shaft ends. (Dwg.1/2)

Abstract (Equivalent): US 5005475 A

To permit resleeving or recoating of circumferentially continuous **printing** cylinders, one of the side walls of the **printing** machine is formed with an opening which is closed off by two separable parts, which are movable towards and away from each other, the separable parts being formed with holes to receive stationary shafts for the respective cylinders. The stationary shafts have ball bearings on which the cylinders are rotatably mounted.

The shafts extend beyond **bearings** in a **second** side wall and are retained in **bearings** therein and, beyond the bearings, coupled to a counter holding arrangement.

Upon separation of the parts of the first side wall, the shafts come free, permitting access to the circumferences of the cylinders for recoating or resleeving. (7pp

Title Terms: CONTINUOUS; ROTATING; **PRINT** ; **PRESS** ; HOLLOW; CYLINDER; BEARING; SHAFT; ADJUST; LIMIT; AMOUNT

Derwent Class: P74

International Patent Class (Main): B41F-005/22; B41F-013/26

International Patent Class (Additional): B41F-013/14; B41F-013/22; B41F-013/36

File Segment: EngPI

?

19/9/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

010927092
WPI Acc No: 1996-424043/199642
Related WPI Acc No: 1997-469453
Device for adjusting lateral and circumferential position **of plate cylinder, used in rotary** printing press **- includes sleeve having threads, shaft disposed within sleeve with threads disposed on it engaging with threads on sleeve, and gear assembly coupled to sleeve**
Patent Assignee: HEIDELBERGER DRUCKMASCHINEN AG (HEIC); HEIDELBERG HARRIS INC (HEIC); HEIDELBERGER DRUCKMASCH AG (HEIC)
Inventor: GENTLE B J
Number of Countries: 007 Number of Patents: 008
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5535675	A	19960716	US 95435932	A	19950505	199642	B
EP 741015	A2	19961106	EP 96104952	A	19960328	199649	
JP 8300606	A	19961119	JP 96111762	A	19960502	199705	
CA 2175844	A	19961106	CA 2175844	A	19960506	199710	
EP 741015	A3	19971001	EP 96104952	A	19960328	199749	
EP 741015	B1	19990818	EP 96104952	A	19960328	199937	
CA 2175844	C	19990622	CA 2175844	A	19960506	199944	
DE 59602767	G	19990923	DE 502767	A	19960328	199945	
			EP 96104952	A	19960328		

Priority Applications (No Type Date): US 95435932 A 19950505
Cited Patents: -SR.Pub; DE 2642125; DE 2705522; DE 4407691; EP 262298; GB 599979; US 2425914
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5535675	A		7	B41F-013/24	
EP 741015	A2	G	10	B41F-013/14	
Designated States (Regional): DE FR GB IT					
JP 8300606	A		7	B41F-013/12	
EP 741015	B1	G		B41F-013/14	
Designated States (Regional): DE FR GB IT					
CA 2175844	C	E		B41F-013/44	
DE 59602767	G			B41F-013/14	Based on patent EP 741015
CA 2175844	A			B41F-013/44	
EP 741015	A3			B41F-013/24	

Abstract (Basic): US 5535675 A

The device includes a sleeve having an inner surface with threads disposed on it. There is a shaft disposed within the sleeve, and connected to the machine element such that when the shaft moves laterally to the machine element is moved laterally, the shaft having an outer surface with threads disposed on it which engage the threads disposed on the inner surface of the shaft.

There is a gear assembly coupled to the sleeve, such that a rotational movement of the sleeve causes a circumferential movement of the machine element. There is a first drive for rotating the shaft, such that when the shaft is rotated, the shaft moves the machine element laterally. There is also a second drive for rotating the sleeve, such when the sleeve is rotated, the sleeve moves the gear, and the gear rotates the machine element circumferentially.

ADVANTAGE - Design is simple because single precision-threaded shaft is employed in two different modes of operation, one to accomplish **lateral register** , and one to accomplish circumferential register.

Dwg.0/5
Title Terms: DEVICE; ADJUST; LATERAL; CIRCUMFERENCE; **POSITION** ; PLATE; CYLINDER; ROTATING; **PRINT** ; **PRESS** ; SLEEVE; THREAD; SHAFT; DISPOSABLE; SLEEVE; THREAD; DISPOSABLE; ENGAGE; THREAD; SLEEVE; GEAR; ASSEMBLE; COUPLE; SLEEVE
Derwent Class: P74; Q64
International Patent Class (Main): B41F-013/12; B41F-013/14; B41F-013/24; B41F-013/44
International Patent Class (Additional): B41F-033/14; F16H-019/00
File Segment: EngPI

19/9/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

010683687 **Image available**
WPI Acc No: 1996-180643/199619
XRPX Acc No: N96-151813
Flexure measuring device for rotary printing **machine cylinder - has flexure rod acting on deflection measuring sensor incorporated in side register** setting **device coupled to cylinder pin**
Patent Assignee: KOENIG & BAUER-ALBERT AG (SKBA); KOENIG & BAUER AG (SKBA)
Inventor: SCHAEDE J; SCHAEDE J G
Number of Countries: 009 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 4436628	C1	19960411	DE 4436628	A	19941013	199619	B
EP 706886	A2	19960417	EP 95115685	A	19951005	199620	
JP 8197720	A	19960806	JP 95264352	A	19951012	199641	
US 5591921	A	19970107	US 95542739	A	19951013	199708	
EP 706886	A3	19970122	EP 95115685	A	19951005	199713	
EP 706886	B1	19990616	EP 95115685	A	19951005	199928	
DE 59506216	G	19990722	DE 506216	A	19951005	199935	
			EP 95115685	A	19951005		

Priority Applications (No Type Date): DE 4436628 A 19941013
Cited Patents: No-SR.Pub; DE 2211598; ADE 3008230; DDE 3432701; ADE 3520344; DDE 4313862; AEP 540919
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 4436628	C1		5	B41F-033/00	
EP 706886	A2	G	7	B41F-033/00	
Designated States (Regional): CH DE FR GB IT LI SE					
JP 8197720	A		4	B41F-033/14	
US 5591921	A		6	G01N-003/20	
EP 706886	B1	G		B41F-033/00	
Designated States (Regional): CH DE FR GB IT LI SE					
DE 59506216	G			B41F-033/00	Based on patent EP 706886
EP 706886	A3			B41F-033/00	

Abstract (Basic): DE 4436628 C
The flexure measuring device has a measuring sensor (3) responsive to the deflection of a cylinder pin (2) which can slide axially relative to a side register **setting** device (13). The coupling between the cylinder pin and the side register **setting** device is provided by a push/pull connection (8, 11, 9, 14), with both this and a flexure rod (17) cooperating with the measuring device associated with a rotary bearing (6, 7, 21, 22) for the cylinder pin. Pref. the flexure rod is incorporated in a double linkage coupling (14) of the push/pull connection.

ADVANTAGE - Incorporated in side register **setting** device eliminating need for additional space.
Dwg.1/2

Abstract (Equivalent): US 5591921 A
A device for measuring bending in a cylinder in a rotary **printing press** comprising:
a rotatable cylinder having cylinder journals and an axis of rotation;
means for rotatably supporting said cylinder journals in a frame of a rotary **printing press** , said cylinder being shiftable axially along said axis of rotation;
an axially displaceable **lateral register** adjustment device secured to said frame;
a double jointed coupling connecting said **lateral register** adjustment device and said cylinder journal; and
a bending rod extending between said cylinder journal and said lateral register adjustment device, said bending rod having a first end secured in a bending-resistant manner to said **lateral register** adjustment device and having a second end connected in a bending resistant manner and rotatable with respect to said cylinder journal.
Dwg.1/2

Title Terms: FLEXURE; MEASURE; DEVICE; ROTATING; **PRINT** ; MACHINE; CYLINDER ; FLEXURE; ROD; ACT; DEFLECT; MEASURE; SENSE; INCORPORATE; SIDE; REGISTER ; **SET** ; DEVICE; COUPLE; CYLINDER; PIN
Derwent Class: P74; S02
International Patent Class (Main): B41F-033/00; B41F-033/14; G01N-003/20
International Patent Class (Additional): B41F-013/24; G01B-021/20; G01B-021/32; G01L-001/00; G01L-001/22
File Segment: EPI; EngPI
Manual Codes (EPI/S-X): S02-F01C

19/9/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009974970 **Image available**
WPI Acc No: 1994-242683/199430
XRPX Acc No: N94-191483
Method of correcting dual register of printing **plate - has ends of plate clamped in tensioning bars, with rear bar axially sliding in front bar**
Patent Assignee: HEIDELBERGER DRUCKMASCH AG (HEIC); HEIDELBERGER DRUCKMASCHINEN AG (HEIC)
Inventor: BECKER W
Number of Countries: 004 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
GB 2275022	A	19940817	GB 942699	A	19940211	199430	B
DE 4304328	A1	19940818	DE 4304328	A	19930213	199432	
FR 2701424	A1	19940819	FR 941572	A	19940211	199434	
US 5440984	A	19950815	US 94194247	A	19940210	199538	
GB 2275022	B	19960410	GB 942699	A	19940211	199618	
DE 4304328	C2	20030130	DE 4304328	A	19930213	200311	

Priority Applications (No Type Date): DE 4304328 A 19930213
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2275022	A		15	B41F-013/16	
DE 4304328	A1		6	B41F-027/12	

FR 2701424	A1		B41F-013/16
US 5440984	A	14	B41F-027/06
GB 2275022	B	1	B41F-013/16
DE 4304328	C2		B41F-027/12

Abstract (Basic): GB 2275022 A

The plate cylinder for a rotary **printing press** has a clamp for a flexible **printing** plate on the cylinder. It comprises two tensioning bars provided in a recess of the plate cylinder for clamping the front and rear edge of the plate. A first tensioning bar for the front edge of the **printing** plate is held in the region of a plate side edge to be swivelable about a bolt attached in the recess of the plate cylinder. On the opposite side of the plate, a bolt having an eccentric pin is rotatably held in the tensioning bar.

The eccentric pin is guided in an oblong hole in the base of the recess. A second tensioning bar for the rear edge of the **printing** plate is axially displaceably held on the first tensioning bar.

ADVANTAGE - Does not require complicated **setting** of precise register.

Dwg.2/5

Abstract (Equivalent): GB 2275022 B

A plate cylinder for a rotary **printing press** provided with two tensioning bars for correcting the diagonal register of a flexible **printing** plate and which are provided in a recess of the plate cylinder, and are for clamping the front and rear edges of the plate on the cylinder, wherein a first tensioning bar for the front edge of the **printing** plate is held in the region of a plate side edge in such a manner as to be swivellable about a bolt attached in the recess of the plate cylinder, and wherein, on a side of the plate opposite that where the bolt is located, a bolt having an eccentric pin is rotatably held in the tensioning bar, with the eccentric pin being guided in an oblong hole in the base of the recess, and wherein a second tensioning bar for the rear edge of the **printing** plate is axially displaceably held on the first tensioning bar, there being connecting means extending between the first and second tensioning bars so that when the first tensioning bar is swivelled in the circumferential direction of the plate cylinder, the second tensioning bar is axially displaced.

Dwg.1/2

Abstract (Equivalent): US 5440984 A

The device for clamping flexible **printing** plates on the plate cylinder of rotary **printing presses** can have tensioning bars provided in a recess of the plate cylinder, to which tensioning bars the ends of the **printing** plates can be fastened. It can also be provided with an apparatus for correcting the diagonal register of the plate cylinder by providing swivelling of the tensioning bars.

The adjustment apparatus can be configured with relatively few joints and the adjustment can be done with as little play as possible and with only minimal influencing of the **set** values for the circumferential and **lateral registers** . The arrangement provides a configuration where at least one of the tensioning bars can be axially displaced during the swivelling of the tensioning bars in a circumferential direction within the plate cylinder.

ADVANTAGE - A device for **setting** the diagonal register, the device having only a few joints and allowing the **setting** to be performed with as little play as possible. The device has a minimum influence on the circumferential and **lateral registers** when an adjustment is made to th diagonal register.

Dwg.1/6

Title Terms: METHOD; CORRECT; DUAL; REGISTER; **PRINT** ; PLATE; END; PLATE; CLAMP; TENSION; BAR; REAR; BAR; AXIS; SLIDE; FRONT; BAR

Derwent Class: P74
International Patent Class (Main): B41F-013/16; B41F-027/06; B41F-027/12
International Patent Class (Additional): B41F-027/00
File Segment: EngPI

19/9/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009702701 **Image available**
WPI Acc No: 1993-396254/199350
XRPX Acc No: N93-306246
Pre-adjustment of registration devices on rotary printing presses - **involves standstill or very slow running of sheet feed while registration mark sensors are repositioned**
Patent Assignee: HEIDELBERGER DRUCKMASCH AG (HEIC); HEIDELBERGER DRUCKMASCHINEN AG (HEIC)
Inventor: RODI A
Number of Countries: 001 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 4218761	A1	19931209	DE 4218761	A	19920606	199350	B
DE 4218761	C2	20020124	DE 4218761	A	19920606	200209	

Priority Applications (No Type Date): DE 4218761 A 19920606
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 4218761	A1		5	B41F-033/14	
DE 4218761	C2			B41F-033/14	

Abstract (Basic): DE 4218761 A
Each of four **presses** (2-5) **printing** different colours is equipped with devices for **lateral registration** (6-9) and circumferential registration (10-13) under the control of a unit (14) responsive to sensors (15,16) of registration tracks (17,18) on a freshly **printed** sheet (19).
While the registration errors are being ascertained and the devices are being pre-adjusted, the drive (21) is either stopped or severely slowed. The sensors are **positioned** transversely in alignment with the tracks before the drive is restored to operational speed.
ADVANTAGE - All registration devices are adjusted in a short time and with little difficulty in a procedure producing only a small quantity of waste paper.
Dwg.1/2
Title Terms: PRE; ADJUST; REGISTER; DEVICE; ROTATING; **PRINT** ; **PRESS** ; STANDSTILL; SLOW; RUN; SHEET; FEED; REGISTER; MARK; SENSE; REPOSITION
Derwent Class: P74; S06; T06
International Patent Class (Main): B41F-033/14
International Patent Class (Additional): G05D-003/12
File Segment: EPI; EngPI
Manual Codes (EPI/S-X): S06-C03A; T06-B02B

19/9/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009504319 **Image available**
WPI Acc No: 1993-197855/199325
XRPX Acc No: N93-152210

Offset printing **forme made from sheet metal - is bent to cylindrical shape with edges butt welded together**

Patent Assignee: MAN ROLAND DRUCKMASCH AG (MAUG)
Inventor: HOFFMANN E; PREM W; STOCKL H; WINTERHOLLER J; STOECKL H
Number of Countries: 011 Number of Patents: 009
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 4140768	A1	19930617	DE 4140768	A	19911211	199325	B
EP 554542	A1	19930811	EP 92120894	A	19921208	199332	
CA 2083682	A	19930612	CA 2083682	A	19921124	199335	
DE 4140768	C2	19940818	DE 4140768	A	19911211	199431	
US 5379693	A	19950110	US 92986425	A	19921204	199508	
EP 554542	B1	19960410	EP 92120894	A	19921208	199619	
DE 59205967	G	19960515	DE 505967	A	19921208	199625	
			EP 92120894	A	19921208		
CA 2083682	C	19961029	CA 2083682	A	19921124	199703	
JP 3272427	B2	20020408	JP 92329303	A	19921209	200227	

Priority Applications (No Type Date): DE 4140768 A 19911211
Cited Patents: EP 526867; EP 9360; GB 578777
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 4140768	A1		5	B41F-027/06	
EP 554542	A1	G	6	B41N-001/12	
Designated States (Regional): CH DE FR GB IT LI NL SE					
CA 2083682	A			B41F-007/02	
DE 4140768	C2		5	B41F-027/06	
US 5379693	A		9	B41F-027/12	
EP 554542	B1	G	6	B41N-001/12	
Designated States (Regional): CH DE FR GB IT LI NL SE					
DE 59205967	G			B41N-001/12	Based on patent EP 554542
CA 2083682	C			B41F-007/02	
JP 3272427	B2		5	B41F-027/12	Previous Publ. patent JP 5254096

Abstract (Basic): DE 4140768 A

An offset **printing** form is made from a metal sheet for fitting to the forme cylinder of a **printing** machine. The sheet (1) is bent to cylindrical shape and the abutting edges (2) are welded together. The **printing** forme is a friction fit on the forme cylinder but is easily removed.

The **printing** forme is correctly **positioned** o the forme cylinder by means of dowels which fit in holes in metal sheet or in recesses cut in the end edges of the cylindrical shape. The **printing** forme has a continuous smooth surface free from fixing grooves.

USE/ADVANTAGE - The continuous smooth surface enables the **printing** forme to be used to **print** continuous images or pictures.

tt

Dwg.1/4

Abstract (Equivalent): EP 554542 B

Offset **printing** forme made from a metallic material for a forme cylinder of a **printing** **press** , the **printing** forme being produced from a rectangular plate (1) by being bent into a hollow cylindrical shape, the faceting edges of the plate (1) being connected to each other (1), so that the offset **printing** forme is provided with a connected channel-free outer surface and can be mounted on the forme cylinder in a frictionally engaged but detachable manner, and register devices (4,6) being provided on at least one end side (3,5) for ensuring the circumferential and **lateral** **register** accuracy.

Dwg.1/4

Abstract (Equivalent): US 5379693 A

The method comprises cutting an essentially rectangular plate of

printing plate or **printing** form material of aluminium, trimetal or other multi-metal to circumferential and width dimensions of the plate cylinder, to provide a cut plate defining leading and trailing edges and side edges (3,5). It involves forming the cut plate with at least one form register element at a location or locations which match the location of the at least one cylinder register element. It involves coating the cut plate with a photo-sensitive layer to permit application of subject matter to be **printed** on the coated plate.

It then involves rolling the cut plate into tubular form to then define an inner plate side and an outer plate side and clamping the tubular cut plate in a workpiece holder of a welding machine with the at least one form register element in predetermined **position** on the workpiece holder. It involves forming a long welding seam (2) axially of the tubular formed cut plate to join the leading and trailing edges and controlling the welding seam formation such that the welding seam, in cross-section, will have essentially concave shape at the outer plate side and at the inner plate side of the tubular formed cut plate.

USE - For making a circumferentially continuous offset **printing** plate or form for a plate cylinder of a rotary offset **printing** machine.

Dwg.1/7

Title Terms: OFFSET; **PRINT** ; FORME; MADE; SHEET; METAL; BEND; CYLINDER; SHAPE; EDGE; BUTT; WELD
Derwent Class: P74; P75
International Patent Class (Main): B41F-007/02; B41F-027/06; B41F-027/12; B41N-001/12
International Patent Class (Additional): B41C-001/18; B41F-013/16; B41N-001/04; B41N-006/00
File Segment: EngPI

19/9/6 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009256024 **Image available**
WPI Acc No: 1992-383437/199247
XRPX Acc No: N92-292374
Sheet- printing press side-mark monitor - has one sensor closer to stop than minimum sheet movement distance
Patent Assignee: MAN ROLAND DRUCKMASCH AG (MAUG)
Inventor: SIMETH C D; SIMETH C
Number of Countries: 011 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 513482	A1	19921119	EP 92103231	A	19920226	199247	B
DE 4116409	A	19921119	DE 4116409	A	19910518	199248	
US 5267728	A	19931207	US 92885302	A	19920518	199350	
EP 513482	B1	19941207	EP 92103231	A	19920226	199502	
DE 4116409	C2	19950105	DE 4116409	A	19910518	199505	
DE 59200892	G	19950119	DE 500892	A	19920226	199508	
			EP 92103231	A	19920226		

Priority Applications (No Type Date): DE 4116409 A 19910518
Cited Patents: GB 1196063
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 513482	A1	G	9	B41F-033/14	
Designated States (Regional): AT BE CH DE ES FR GB IT LI NL					
DE 4116409	A		7	B41F-021/14	

US 5267728 A 7 B65H-009/00
EP 513482 B1 G 9 B41F-033/14
Designated States (Regional): AT BE CH DE ES FR GB IT LI NL
DE 4116409 C2 7 B41F-021/14
DE 59200892 G B41F-033/14 Based on patent EP 513482

Abstract (Basic): EP 513482 A

The side-mark and overlay monitor is for a rotary **press** **printing** sheet having a lateral stop (7) for sheets (3) delivered onto the **press** table (1), the sheet being delivered against the stop by a controlled transverse conveyor (10). A sensor (14, 15) at the stop detects the presence of a sheet and whether it has penetrated below the stop. Other stops (4) align the sheet leading edge and have sensors (6) detecting its presence. A control processes the signals from the sensors.

One lateral sensor (14) is at a distance (13) from the stop (7) less than the minimum amount for which the sheet has to be moved against the stop, and which is measured from the stop to the table centre. This actuates the control for the transverse conveyor when the front sensors have detected the presence of a sheet but the lateral ones have not done so.

ADVANTAGE - No sheet distortion by conveyor when sheet is too close to lateral stop.

Dwg.1/4

Abstract (Equivalent): DE 4116409 C

A side mark and pull-over control uses a side stop (7) to line up tabled (1) sheets (3) to the sides in conjunction with a sheet conveyor (10) which feeds the sheets in crossways onto the stop. A sensor unit (14,15) allocated to the side stop checks on sheet presence or sheets running in below the side stop, using front end stops (4) to line up the leading sheet edge assisted by a sensor unit (6) for sheet presence. Sensor signals are processed by a controller, and sensor (14) is at a shorter measured distance from the stop than the minimum pull path interval between the sheet and stop, as measured from the table centre to the stop point.

The sensor (14) triggers the conveyor only once the sensor (6) has reported sheet presence at the leading edge, with the side sensors (14,15) free of sheets. When the side unit consists of a single sensor (14), the output signal from this is graded in intensity and evaluated so that the higher intensity signal component is used in the control unit as pull-over control value as against the less intense signal which serves as side mark control only.

USE/ADVANTAGE - **Printing** , sheet-fed rotaries. Sensor controlled side and leading edge stops prevent sheet distortion at edges in precise alignment routine.

Dwg.1/4

Abstract (Equivalent): EP 513482 B

Side lay and overdraw check of a rotary sheet **printing** **press** with a lateral stop (7) for laterally aligning sheets (3,3a,3b) fed on a feed table (1) of the **press** with which stop (7) a controllably actuated transverse feeder (10) cooperates which feeds the arriving sheets (3,3a,3b) against the lateral stop (7), furthermore with a lateral sensor arrangement (14,15) coordinated with the lateral stop (7) which determines whether a sheet (3,3a,3b) is present (**lateral** **register** check) or whether a sheet (3,3a,3b) runs under the lateral stop (7) (overdraw check), further with front stops (4) for aligning the front edge of the sheet (3,3a,3b) as well as with a front sensor arrangement (6) coordinated to one of the front stops (4) which determines if a sheet (3,3a,3b) is present in the region of the front stops (4) and with a control which evaluates the output signals of the sensor arrangement (6,14,15), characterised in that the lateral sensor

arrangement has a sensor (14) which is arranged at a measured distance (13) from the lateral stop (7) which is smaller than a minimum distance which is determined by the pulling path of the sheet towards the lateral stop and which is measured from the lateral stop towards the centre of the feed table, and that the control of the transverse feeder (10) is actuated if the front sensor arrangement (6) sees a sheet (3,3a,3b) and the lateral sensor arrangement (14,15) sees no sheet (side lay checking).

(Dwg.1/4

Abstract (Equivalent): US 5267728 A

A lateral sensor is **positioned** at a predetermined distance from the side lay mark. When front sensors determine the presence of a sheet at front lay marks, the lateral sensor is evaluated.

The sheet will only be conveyed transversely toward the side lay if the lateral sensor has not detected a sheet but the front sensors have. This ensures that the side edge of the sheet is at a sufficient distance from the side lay mark. A single sensor can also be used for all side lay mark monitoring, including monitoring for excess draw.

USE/ADVANTAGE - A device for monitoring the side lay marks and excess draw of a sheet fed rotary **press** , that further ensures that sheets are at a sufficient distance from the side lay mark prior to transverse conveyance.

Dwg.1/6

Title Terms: SHEET; **PRINT** ; **PRESS** ; SIDE; MARK; MONITOR; ONE; SENSE; CLOSE; STOP; MINIMUM; SHEET; MOVEMENT; DISTANCE

Derwent Class: P74; Q36

International Patent Class (Main): B41F-021/14; B41F-033/14

International Patent Class (Additional): B41F-021/12; B41F-033/06; B65H-007/08; B65H-007/10; B65H-007/14; B65H-009/20

File Segment: EngPI

19/9/7 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

008606963 **Image available**

WPI Acc No: 1991-110993/199116

XRPX Acc No: N91-085629

Alignment control for multistage printing **press - as one stage non-adjustable but uses processor to adjust other stages**

Patent Assignee: HEIDELBERGER DRUCKMASCH AG (HEIC); HEIDELBERGER DRUCKMASCHINEN AG (HEIC)

Inventor: RODI A

Number of Countries: 016 Number of Patents: 011

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 422412	A	19910417	EP 90117743	A	19900914	199116	B
DE 3933666	A	19910418	DE 3933666	A	19891009	199117	
AU 9063125	A	19910411				199122	
CA 2027152	A	19910410				199126	
CN 1050844	A	19910424				199203	
AU 635066	B	19930311	AU 9063125	A	19900924	199317	
DE 3933666	C2	19930603	DE 3933666	A	19891009	199322	
US 5327826	A	19940712	US 90594730	A	19901009	199427	
EP 422412	B1	19941207	EP 90117743	A	19900914	199502	
DE 59007925	G	19950119	DE 507925	A	19900914	199508	
			EP 90117743	A	19900914		
ES 2066924	T3	19950316	EP 90117743	A	19900914	199517	

Priority Applications (No Type Date): DE 3933666 A 19891009

Cited Patents: A3...9132; DE 3609008; EP 187192; EP 241773; FR 2512737; NoSR.Pub; WO 8605141; WO 8606141

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 422412	A				
Designated States (Regional): AT BE CH DE ES FR GB IT LI NL SE					
AU 635066	B			B41F-013/12	Previous Publ. patent AU 9063125
DE 3933666	C2		10	B41F-013/12	
US 5327826	A		12	B41F-005/06	
EP 422412	B1	G	12	B41F-013/12	
Designated States (Regional): AT CH DE ES FR GB LI					
DE 59007925	G			B41F-013/12	Based on patent EP 422412
ES 2066924	T3			B41F-013/12	Based on patent EP 422412

Abstract (Basic): EP 422412 A

The multi-stage **printing press** , e.g. offset **press** , has all but one of the **print** stages adjustable for registration. A processor monitors the requistration settings. The final stage is non-adjustable but is fitted with adjusting controls. Adjustment for the final stage is via the processor which adjusts all the other stages correspondingly to provide an quari adjustment.

The final stage can be a lacquering stage. The new type of adjustment a- **positioning** of the roller etc. The alignment of each stage is controlled by simple alignment crosses etc.

ADVANTAGE - Cosst saving **print press** , simple alignment.

Dwg.1/4

Abstract (Equivalent): EP 422412 B

Printing machine having a plurality of **printing** units (2-5) which are provided with circumferential (U) and **lateral** (S) **register** adjustment devices to which a control command input device (16) is assigned, with which a **position** change of the subject (20) is effected by consistent register adjustments of the **printing** units (2,3,4), characterized in that one **printing** unit (5) is designed without a circumferential (U) and **lateral** (S) **register** adjustment device and is non-adjustable.

Dwg.1/4c

Abstract (Equivalent): US 5327826 A

The **printing** machine has a number of **printing** units, and circumferential and side register adjusting devices for adjusting the register in all but one of the **printing** units, the one **printing** unit being non-adjustable. A control-command input device is associated with the non-adjustable **printing** unit for producing a relative change in **position** of a subject in the non-adjustable one **printing** of a register adjustment of the one **printing** unit as a result of logically consistent register adjustments of the **printing** units having the circumferential and side register adjusting devices.

ADVANTAGE - Ensures that during **setting** and adjusting no marked increase in size of halftone dots occurs.

Dwg.1/6

Title Terms: ALIGN; CONTROL; MULTISTAGE; **PRINT** ; **PRESS** ; ONE; STAGE; NON; ADJUST; PROCESSOR; ADJUST; STAGE

Index Terms/Additional Words: **OFFSE TEP 9**

Derwent Class: P74; S06

International Patent Class (Main): B41F-005/06; B41F-013/12

International Patent Class (Additional): B41F-033/16; G05D-003/00

File Segment: EPI; EngPI

Manual Codes (EPI/S-X): S06-C03

19/9/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

007660450 **Image available**
WPI Acc No: 1988-294382/198842
XRPX Acc No: N88-223461
Registration controller for print **rollers - has coupled angled gears and axial** position **control regulated using microprocessor**
Patent Assignee: MAN ROLAND DRUCKMASCH AG (MAUG)
Inventor: HAJEK J; MAMBERER H
Number of Countries: 007 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 286982	A	19881019	EP 88105590	A	19880408	198842	B
DE 3712702	A	19881103	DE 3712702	A	19870414	198845	
US 4821640	A	19890418	US 88181310	A	19880413	198918	
EP 286982	B1	19920610	EP 88105590	A	19880408	199224	
DE 3871845	G	19920716	DE 3871845	A	19880408	199230	
			EP 88105590	A	19880408		

Priority Applications (No Type Date): DE 3712702 A 19870414
Cited Patents: A3...8948; EP 154836; No-SR.Pub; WO 8304219
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 286982	A	G	10		
Designated States (Regional): CH DE FR IT LI SE					
US 4821640	A		10		
EP 286982	B1	G	12	B41F-013/14	
Designated States (Regional): CH DE FR IT LI SE					
DE 3871845	G			B41F-013/14	Based on patent EP 286982

Abstract (Basic): EP 286982 A

The **print** system has three pairs of rollers - one roller of each pair with a rubber cloth lining and one as the plate roller. Two pairs have their cloth rollers with double angled gear wheel drives meshing and coupled to the third roller by a separate gear. The whole **press** is driven by a single drive with registration control byaxial movement of the cylinder.

Axial **position** control monitors and servo drives for the axial **position** adjustment are controlled by a microprocessor. An indicator system and correction control system compelte th **press** .

5/6

Abstract (Equivalent): EP 286982 B

Registering device for a **printing** unit having three **printing** stations (1, 2, 3) arranged more or less in a Y-shape and including pairs of plate/blanket cylinders (5, 4; 7, 6; 9, 8) the **printing** stations having helical drive gear wheels (22 to 29) on the axle journals (10 to 14), two fo which, constructed as double gear wheels (23, 24 and 28, 29) with opposite pitch, are arranged on axle journals (10, 13) of two blanket cylinders (4, 8) and are in permanent toothed engagement with each other by means of a gear wheel (29) on the axle journal (13) of the third blanket cylinder (8), all the cylinders (4 to 9) being axially displaceable and the drive being introduced via one (22) of the gear wheels (22 to 29) arranged on the cylinders (4 to 9), characterised in that a lateral **position** -recognition element (30, 40, 62; 33, 43), is associated with each of the three plate cylinders (5, 7, 9) and the two blanket cylinders (4, 8) each equipped with a double gear wheel (23, 24; 28, 29), and in that theses two blanket cylinders (4, 8) are each in working relationship with a **position** regulator (34, 44) by means of which (34, 44) axial movement of one or both

blanket cylinders (4, 8) is effected if one of the plate cylinders (5, 7, 9) for **lateral registration** is shifted by a registering device (16, 17, 19) or circumferential registration or correction is to be carried out on one of the plate cylinders

Abstract (Equivalent): US 4821640 A

To permit both circumferential as well as axial register adjustment of three **printing** couples (1, 2, 3), in which the respective cylinders of the printing couples are interconnected by spiral gears, two of the blanket cylinders (4,8) are axially shiftable. The changes in circumferential **register** , upon changing of **lateral register** - due to the spiral gears - are compensated by **position** motor controllers which may include a microprocessor, automatically. **Lateral register** is **set** in a predetermined sequence by the respective cylinders, in accordance with the coupling of one of the plate cylinders (e.g. 5) with a **printing** machine main drive pinion. ADVANTAGE - Rapid and reliable adjustment of **lateral** and circumferential **register** .

(10pp

Title Terms: REGISTER; CONTROL; **PRINT** ; ROLL; COUPLE; ANGLE; GEAR; AXIS; **POSITION** ; CONTROL; REGULATE; MICROPROCESSOR

Derwent Class: P74; S06

International Patent Class (Main): B41F-013/14

International Patent Class (Additional): B41F-005/18; B41F-033/00

File Segment: EPI; EngPI

Manual Codes (EPI/S-X): S06-C03

19/9/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

007472425

WPI Acc No: 1988-106359/198816

XRPX Acc No: N88-080674

Printing **plate register correction system for rotary** press **- has processor calculating correction values for peripheral and edge of** printing **plate w.r.t. plate cylinder**

Patent Assignee: HEIDELBERGER DRUCKMASCH AG (HEIC); HEIDELBERGER DRUCKMASCHINEN AG (HEIC)

Inventor: JESCHKE W; RODI A

Number of Countries: 013 Number of Patents: 012

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 3633855	A	19880414	DE 3633855	A	19861004	198816	B
EP 266515	A	19880511	EP 87113079	A	19870908	198819	
AU 8777619	A	19880414				198823	
DK 8705012	A	19880405				198826	
DE 3633855	C	19880707				198827	
CN 8706629	A	19880511				198925	
US 5117365	A	19920526	US 87105410	A	19871005	199224	
			US 89311416	A	19890213		
			US 89328856	A	19890327		
EP 266515	B1	19920708	EP 87113079	A	19870908	199228	
DE 3780251	G	19920813	DE 3780251	A	19870908	199234	
			EP 87113079	A	19870908		
DK 165871	B	19930201	DK 875012	A	19870924	199310	
CA 1329050	C	19940503	CA 544512	A	19870813	199423	
EP 266515	B2	19960410	EP 87113079	A	19870908	199619	

Priority Applications (No Type Date): DE 3633855 A 19861004

Cited Patents: 1.Jnl.Ref; A3...8832; DE 3136703; DE 3541222; JP 58011156; No-SR.Pub; DE 3222022

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 3633855	A		12		
EP 266515	A	G			
Designated States (Regional): CH DE FR GB IT LI NL SE					
US 5117365	A		11	G06F-015/46	Cont of application US 87105410 CIP of application US 89311416
EP 266515	B1	G	16	B41F-013/16	
Designated States (Regional): CH DE FR GB IT LI NL SE					
DE 3780251	G			B41F-013/16	Based on patent EP 266515
DK 165871	B			B41F-013/16	Previous Publ. patent DK 8705012
EP 266515	B2	G	15	B41F-013/16	
Designated States (Regional): CH DE FR GB IT LI NL SE					
CA 1329050	C			B41F-013/16	

Abstract (Basic): DE 3633855 A

The register correction system uses adjustment of the **printing** plate relative to the plate cylinder after a test **printing** run. The **printing** plate is pivoted at one end to the plate cylinder with controlled rotation of the plate in two different planes to obtain the correct peripheral and edge alignment.

Pref. the alignment correction data are provided by a processor evaluating the **position** data of the test **print** run to calculate **setting** values for the register correction. An input keyboard can be used to enter input data for the size of the **printing** plate, the **printing position** etc.

USE - Processor-controlled **position** correction of **printing** plate.

0/6

Abstract (Equivalent): EP 266515 B

Method of register correction by pivoting a flexible **printing** plate on the plate cylinder of a **printing** machine, the **printing** plate being arranged on the plate cylinder so as to pivotable about a turning point of said plate, and devices for adjusting the circumferential and **lateral registers** being provided in the machine, in which method a final register correction of the image to be **printed** takes **place** , after a proof has been **printed** , by turning the plate such that, first of all, the data of the register deviation (Fu, Fs, Fa) of a defined register point in a circumferential **position** (Fu) and/or lateral **position** (Fs) and/or angular **position** (Fa) are determined and, thereafter, adjusting operations necessary for turning the plate and for the circumferential and **lateral registers** are initiated, characterised in that adjustment commands based on the data previously determined also take into account the **position** of the turning point (B) of the plate of the associated apparatus.

Dwg.1a,1b/

6

Abstract (Equivalent): US 5117365 A

The method of registration correction involves turning a flexible plate about a point on a cylinder of a **press** , and determining data regarding a deviation from registration of a defined register rotation in at least one of a circumferential, side and angular **position** of the plate from a specimen made from the plate. Adjustment commands are issued initiating adjustment operations in devices provided in the **press** for respectively turning the plate and for effecting circumferential and side register. The adjustment commands take into account the determined data, so as to finally correct the register of a pattern produced by the **printing** plate. ADVANTAGE - Achieves perfect

registration connection.
Title Terms: **PRINT** ; PLATE; REGISTER; CORRECT; SYSTEM; ROTATING; **PRESS** ; PROCESSOR; CALCULATE; CORRECT; VALUE; PERIPHERAL; EDGE; **PRINT** ; PLATE; PLATE; CYLINDER
Derwent Class: P74; S06
International Patent Class (Main): B41F-013/16; G06F-015/46
International Patent Class (Additional): B41F-027/00
File Segment: EPI; EngPI
Manual Codes (EPI/S-X): S06-C03

19/9/10 (Item 10 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007357979
WPI Acc No: 1987-354985/198750
XRPX Acc No: N87-265910
Plate cylinder register control for web fed printing **- has motors to laterally and circumferentially adjust** position **of plate cylinder through thrust bearings supporting ends of operator elements**
Patent Assignee: ROCKWELL INT CORP (ROCW)
Inventor: HANNON W G; MOMET S; MOMOT S
Number of Countries: 007 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 4709634	A	19871201	US 86914430	A	19861002	198750	B
EP 262298	A	19880406	EP 87107318	A	19870520	198814	
CA 1275852	C	19901106				199050	
EP 262298	B1	19920513	EP 87107318	A	19870520	199220	
DE 3779035	G	19920617	DE 3779035	A	19870520	199226	
			EP 87107318	A	19870520		

Priority Applications (No Type Date): US 86914430 A 19861002
Cited Patents: A3...8926; GB 599979; US 2425914; US 2539068
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 4709634	A		5		
EP 262298	A	E			
Designated States (Regional): DE FR GB IT SE					
EP 262298	B1	E	8	B41F-013/14	
Designated States (Regional): DE FR GB IT SE					
DE 3779035	G			B41F-013/14	Based on patent EP 262298

Abstract (Basic): US 4709634 A
The **press** register adjuster comprises an elongated operator having the external threads on the outer surface of it supported at an end within a bore formed in the plate cylinder journal carrying the cylinder drive gear for relative rotation w.r.t. the journal and supported on a second end within internally threaded device fixed w.r.t. a **press** side frame. A drive is operably connected to the operator of it thus lateral movement of the plate cylinder is thus effected and adjustment of **lateral register** is accomplished. A second internally threaded device is disposed on and mates with the external threads on the outer surface of the elongated operator.
A device is operably connects the internally threaded device to the plate cylinder drive gears. A second drive is operably connected to the second internally threaded device to effect rotation of it. The rotation creates lateral forces in the plate cylinder drive gear that causes rotation of it and effects adjustment of circumferential

register.
USE - Multi-colour **printing** .
2/3

Abstract (Equivalent): EP 262298 B

In a rotary **printing press** having a plate cylinder with journals (10) for rotatably supporting the plate cylinder in a frame and a plate cylinder helical drive gear (11) mounted on one of the journals (10) to effect rotation of the plate cylinder, a **lateral** and circumferential **register** adjusting mechanism (15) comprising: (a) elongated operator means (16) having external threads on the outer surface thereof, said plate cylinder drive gear (11) being mounted on said journal (10) for relative rotation with respect to said elongated operator means (16), and said elongated operator means (16) having a first end supported within internally threaded means (40) fixed with respect to a **press** side frame (35,36); (b) internally threaded means (50) disposed on and mating with the external threads on the outer surface of said elongated operator means (16); and (c) means (53,56) operably connecting said internally threaded means (50) to the plate cylinder drive gear (11), characterised in that (d) said elgonated operator means (16) has a second end supported within a bore (19) formed in the plate cylinder journal (10); (e) firstt drive means (60) are operably connected to said elgonated operator means (16) to effect rotation and simultaneous longitudinal movement thereof, whereby lateral movement of the plate cylinder is effected and adjustment of **lateral register** is accomplished; and (f) second drive means (60a) are operably connected to said internally threaded means (50) to effect rotation thereof, which rotation creates lateral forces in the plate cylinder drive gear (11) that cuase rotation thereof and effect adjustment of circumferential register.

Title Terms: PLATE; CYLINDER; REGISTER; CONTROL; WEB; FEED; **PRINT** ; MOTOR; LATERAL; CIRCUMFERENCE; ADJUST; **POSITION** ; PLATE; CYLINDER; THROUGH; THRUST; BEARING; SUPPORT; END; OPERATE; ELEMENT

Derwent Class: P74

International Patent Class (Main): B41F-013/14

International Patent Class (Additional): B41F-013/12

File Segment: EngPI

19/9/11 (Item 11 from file: 350)

DIALOG(R)File 350:Derwent WPIX

007269145

WPI Acc No: 1987-266152/198738

XRPX Acc No: N87-199465

Control of machines for graphic arts and for cardboard box making - displaying data processed from machine unit on touch sensitive display unit and controlling units by contact with display unit

Patent Assignee: BOBST SA (BOBS); BOBST & SOHN AG J (BOBS)

Inventor: CHABLAIS C; ROCH R; VITOUS V

Number of Countries: 009 Number of Patents: 012

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
GB 2188171	A	19870923	GB 87705966	A	19870313	198738	B
DE 3707866	A	19871001	DE 3707866	A	19870311	198740	
SE 8701065	A	19870918				198744	
FR 2600943	A	19880108				198809	
CH 665999	A	19880630				198828	
US 4847775	A	19890711	US 8724706	A	19870311	198935	
ES 2004566	A	19890116	ES 87749	A	19870317	198936	

GB 2188171	B	19901219					199051
IT 1208247	B	19890612					199134
CA 1285635	C	19910702					199147
SE 467942	B	19921005	SE 871065	A	19870316		199243
DE 3707866	C2	19971120	DE 3707866	A	19870311		199750

Priority Applications (No Type Date): CH 861071 A 19860317

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2188171	A		12		
US 4847775	A		11		
DE 3707866	C2		9	B41F-033/14	
SE 467942	B			G05B-015/02	

Abstract (Basic): GB 2188171 A

A computing module (12) receives data relating to the progress of a strip (1) and compares this with data from mobile (7 and 8) and fixed (9 and 10) read heads. The data is transmitted to a storage unit (24) connected to the memory of a computer (25) coupled to a tactile screen (26) allowing the direct control and adjustment of the units of the machine.

In order to display the images appearing on the tactile screen, a **printer** (27) and a photographic device (28) are coupled to the computer. The data is processed into a form suitable for display. The processor is arranged to convert the detected data into graphical and alphanumeric data, for displaying .

USE/ADVANTAGE - For **printing press** . Does not need aux iliary **position** adjustment device.

1/7

Abstract (Equivalent): GB 2188171 B

Apparatus for controlling the units of a machine with respect to a web moving past said units, said units arranged in respective stations of said machine at which various corrections are made, said stations including a **printing** station at which the lingitudianl and **lateral registration** of the **printing** is corrected and a cutting station at which longitudinal and **lateral registration** of a cutting operation on said web is corrected, said apparatus comprising: means for sensing registration marks **printed** on the web at the **printing** station to generate registration data; a compuring module having a first stage including an interface, read microprocessors and motor control microprocessors, said interface receiving data transmitted from said units representative of operating conditions of said units and data a pulse generator which represents progress of teh web through the machine, the output of the interface being connected to said read microprocessors, said interface also being connected to a linear bus, said read microprocessors being connected to the said sensing means and to the said linear bus, said motor control microprocessors being connected to the said linear bus and to a motor of the sensing means, said motor control microprocessors being arranged to control the movement of the sensing means relative to said web, said computing module also having a second stage including first, second and third motor control microprocessors, said first and second motor control microprocessors being arranged to control motors for the longitudinal correction of the **printing** and motors for the lateral correction of the **printing** respectively, said third motor control microprocessor being arranged to control the movement of motors for correction of the longitudinal and **lateral** cutting **registration** and wherein said motor contorlmicroprocessors are connected to the linear bus; data storage means connected to said bus; means for processing the stored data into a form suitable for displ

Abstract (Equivalent): US 4847775 A

The **setting** of the components of a **printing** machine is controlled by a calculating unit which receives all the data regarding the operating status of each of the components to be controlled. The calculating unit processes data relating to the running of the web and compares the data with the data obtained by read heads, also sensing the web.

The data from the read heads are supplied to the memory of a computer, the computer also having a touch screen for permitting direct control and **setting** of the components. A **printer** and a photographic recorder are coupled to the touch screen for displaying the images.

USE - Controlling **setting** of various components of a **printing** and cutting machine by simple manual contact with a touch screen of a computer. (11pp)a

Title Terms: CONTROL; MACHINE; GRAPHIC; ART; CARDBOARD; BOX; DISPLAY; DATA; PROCESS; MACHINE; UNIT; TOUCH; SENSITIVE; DISPLAY; UNIT; CONTROL; UNIT; CONTACT; DISPLAY; UNIT

Index Terms/Additional Words: **PRINT** ; **PRESS**

Derwent Class: P62; P72; P74; Q36; S06; T06

International Patent Class (Main): B41F-033/14; G05B-015/02

International Patent Class (Additional): B26D-005/34; B31B-001/00; B41F-013/02; B41F-033/00; B65H-023/00; B65H-023/032; B65H-023/192; B65H-035/00; B65H-043/08; G05B-019/40

File Segment: EPI; EngPI

Manual Codes (EPI/S-X): S06-C03; T06-A04A2

19/9/12 (Item 12 from file: 350)

DIALOG(R)File 350:Derwent WPIX

004769486

WPI Acc No: 1986-272827/198642

XRPX Acc No: N86-203627

Paper feed for photocopier - has two suction pads rotating in opposite direction to flatten paper

Patent Assignee: MABEG MASCH NACH HE (MABE-N); NACHF HENSE & PLEINES (HENS-N); NACHF HENSE & PLKINES (HONS-N)

Inventor: HERRMANN H; SCHWEBEL A

Number of Countries: 003 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 3511897	A	19861009	DE 3511897	A	19850401	198642	B
GB 2175573	A	19861203	GB 867922	A	19860401	198649	
US 4693463	A	19870915	US 86846873	A	19860401	198739	
DE 3511897	C	19880616				198824	
GB 2175573	B	19890111				198902	

Priority Applications (No Type Date): DE 3511897 A 19850401

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 3511897	A		12		

Abstract (Basic): DE 3511897 C

The suction pads are at the front corners of the transport slider and rotate outwards with their leading edges. The suction force is applied for the leading part of the pad rotation. One pad has a stronger pull than the other, to align the sheet onto lateral stops.

The suction pads can be driven continuously or by a stepped drive. The suction pads have a hole pattern and are in recessed mountings with axial adjustment.

ADVANTAGE - Secure paper feed, can handle thin sheets without creasing. (12pp Dwg.No.0/2)

Abstract (Equivalent): DE 3511897 C

A transfer platform (1) for paper sheets (9) is provided with location rails (4,5) at its front end and on one side. Adjacent to the location rails, the platform is provided with two rotating suction heads (2,2') which are level with the platform surface.

The suction heads, which rotate in opposite directions are provided with suction holes (8) which are located in a circular pattern. The suction sequence is controlled such that the sheet (9) is transferred diagonally into the corner where it is in contact with both location rails.

ADVANTAGE - Paper sheet transfer platform has rotating suction heads which provide simple, reliable **positioning** of paper sheet. (5pp)

Abstract (Equivalent): GB 2175573 B

Apparatus for registering the leading sheet in a sheet stream being fed in a feed direction across a feed table of a sheet treating machine against side and/or front stops, the apparatus comprising, associated with the downstream end of the feed table and laterally spaced apart relative to the feed direction, a pair of rotatable suction plates or discs having their axes of rotation perpendicular to the plane of the feed table, means for driving the plates or discs to rotate in opposite sensors about their axes, and means to subject suction openings in the plate or disc facs selectively to a soruce of suction, whereby the plates or discs act to feed the leading sheet forward and/or sideways to lie against the front and/or side stops respectively while simultaneously stretching the sheet transversely to the feed direction.

Abstract (Equivalent): US 4693463 A

Two suction plates are arranged at a distance one from another at right angles to the feed direction, which are each respectively drivable in rotation about an axis. By use of suction openings which can be subjected to suction, the respective frontmost sheet of the sheet stream can be grasped in the region of its front edge and moved to bring its side edge to lie against a side stop and to bring its front edge to lie against a side stop and to bring its front edge to lie against a front stop.

One suction plate is drivable rotatably in a first rotational sense and the second suction plate in the opposite rotational sense. The suction openings of one suction plate can be subjected to greater suction than the suction openings of the other plate, so that the correct desired stretching of the sheet and registration against front stops an a side stop is achieved.

USE - A device for the **lateral registration** and **registration** in the feed direction of sheets which are fed in a sheet stream across a feed table to a sheet treating machine, e.g. a **printing press** . (7pp)r

Title Terms: PAPER; FEED; PHOTOCOPY; TWO; SUCTION; PAD; ROTATING; OPPOSED; DIRECTION; FLATTEN; PAPER

Derwent Class: Q36

International Patent Class (Additional): B65H-009/10

File Segment: EngPI

19/9/13 (Item 13 from file: 350)

DIALOG(R)File 350:Derwent WPIX

004721615

WPI Acc No: 1986-224957/198634

XRPX Acc No: N86-167861

Dual-stream envelope feeder - has two opposed sheet riders urging envelopes against press **conveyor at each side of register bar**

Patent Assignee: MILES M (MILE-I)
Inventor: MILES K
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 4603846	A	19860805	US 84657373	A	19841003	198634	B

Priority Applications (No Type Date): US 84657373 A 19841003
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 4603846	A		8		

Abstract (Basic): US 4603846 A

A register bar is centrally located in the feed path of the **press** between oppositely reciprocating joggers, moving the envelopes into **lateral registration** against opposite sides of the register bar. The register bar can be assembled in a removable unit with a pair of oppositely disposed sheet riders urging the feed envelopes into contact with a conveyor on the **press** proximate to opposite sides of the register bar.

A separator plate, having a thickness greater than the **lateral** width of the **register** bar, is mounted in alignment with the register bar on a stack feeder, for initially **positioning** pairs of envelopes on the conveyor laterally separated from the register bar in preparation for registration by the joggers. A **press** conveyor section has a pair of adjustably located conveyor tapes and another conveyor tape centrally located between them by a scissors mechanism.

USE - An envelope feeding attachment for a sheet-feeding **printing press** . (8pp Dwg.No.1/5)

Title Terms: DUAL; STREAM; ENVELOPE; FEED; TWO; OPPOSED; SHEET; RIDE; ENVELOPE; **PRESS** ; CONVEYOR; SIDE; REGISTER; BAR
Derwent Class: Q36
International Patent Class (Additional): B65H-009/04
File Segment: EngPI

19/9/14 (Item 14 from file: 350)

DIALOG(R)File 350:Derwent WPIX

004397588
WPI Acc No: 1985-224466/198537
XRPX Acc No: N85-168609

Offset printing **press perforation alignment mechanism - has mounting shaft with lengthwise scale plate for numbering mechanism**

Patent Assignee: RYOBI KK (RYOB)
Inventor: FUJII Y; SHINMOTO T
Number of Countries: 002 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 3507314	A	19850905	DE 3507314	A	19850301	198537	B
US 4598638	A	19860708	US 85707251	A	19850301	198630	
DE 3507314	C	19880915				198837	

Priority Applications (No Type Date): JP 84U30970 U 19840302
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 3507314	A		13		

Abstract (Basic): DE 3507314 A

The mechanism aligns a transverse perforation in the lengthwise direction in an offset **printing press** . A transparent plate has lengthwise and transverse scales, from which the perforation **position** can be read off. This is **placed** against a **printed** sheet before perforation. A mounting shaft (2) is provided for a numbering mechanism (13) and a lengthwise scale plate is fixed to this shaft.

A further mounting shaft (4) parallel to the first accommodates the perforation tool (5) with knife (11). A lengthwise scale is mounted on the outside of the cylinder accommodating the numbering mechanism and a first pointer (6) is fixed near this scale. A second pointer (7) is fixed near the tool.

ADVANTAGE - Simple, rapid and accurate operation.

4/4

Abstract (Equivalent): DE 3507314 C

The offset **printing** machine is equipped with a perforator blade (5) for forming a transverse line of perforations on the **printed** sheet attached to the **printing** cylinder. The shaft (4) carrying the perforator blade (5) can be rotated through a gear train from a second shaft (2). This shaft (4) carries a disc with a scale marked around its periphery.

A fixed pointer (6) indicates the angle of rotation of the disc which corresponds to the angle of rotation of the perforator blade and so enables the **position** of the blade to be adjusted in order to form the line of perforations in the required **place** on the **printed** sheet.

USE - Perforation of **printed** sheets. (5pp)

Abstract (Equivalent): US 4598638 A

The **position** of lateral perforations formed on **printing** sheets can be accurately **set** without the need for running a number of test sheets. A lateral perforating **position** reading plate is provided, made of a transparent material and having both lateral and vertical scales.

A **printing** sheet is **placed** on the perforating **position** reading plate prior to **printing** to determine the **position** of lateral perforating. A vertical scale provided on the outer peripheral surface of a numbering device mounting cylinder is then adjusted relative to a fixed pointer to correspond to the value read on the reading plate.

USE - **Lateral** perforation vertical **registration** device for offset **press** . (5pp)w

Title Terms: OFFSET; **PRINT** ; **PRESS** ; PERFORATION; ALIGN; MECHANISM; MOUNT ; SHAFT; LENGTHWISE; SCALE; PLATE; NUMBER; MECHANISM

Derwent Class: P74; P75

International Patent Class (Additional): B41F-013/12; B41G-007/00; B41L-049/02

File Segment: EngPI

19/9/15 (Item 15 from file: 350)

DIALOG(R)File 350:Derwent WPIX

004050462

WPI Acc No: 1984-196004/198432

XRPX Acc No: N84-146304

Registration control for printing press **- has contrast monitor built into** press **and rotary** print presses **with colour overlay**

Patent Assignee: MAN MASCHFAB AUGSBURG-NUERNBERG (MAUG)

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Number of Countries: 011 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 3302798	A	19840802	DE 3302798	A	19830128	198432	B
EP 114957	A	19840808	EP 83111488	A	19831117	198432	
US 4553478	A	19851119				198549	
DE 3302798	C	19870305				198709	
EP 114957	B	19880601				198822	

Priority Applications (No Type Date): DE 3302798 A 19830128
Cited Patents: A3...8546; DE 2011979; DE 2922964; DE 3100451; DE 3111177; GB 2073663; No-SR.Pub; US 3774536
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 3302798	A		23		
EP 114957	A	G			
Designated States (Regional): AT CH FR GB IT LI LU NL SE					
EP 114957	B	G			
Designated States (Regional): AT CH FR GB IT LI NL SE					

Abstract (Basic): DE 3302798 A

The contrast monitor (4) is mounted directly in the **press** and moves parallel to the **print** roller axis. It monitors the master stretched over the roller and ensures that the alignment markings are in the correct **position** prior to **printing** .

Rotary **print** **presses** with colour overlay. The monitor can be linked to an automatic control which regulates the roller speeds during **printing** to maintain the alignment.

ADVANTAGE - Provides accurate alignment as it is mounted on the **press** .

1/3

Abstract (Equivalent): DE 3302798 C

A presetter uses a crossbar riding scanner to measure coordinates of adjusting marks on **printing** plates clamped to a plate cylinder.

A computer compares scanned values with stored ideal values before issuing amplified corrective signals to the register adjuster.

Scanning should be by a contrast reader (4) moved at selected speed right across the **print** area of the plate (6) and its adjusting marks (14) to scan the light/dark plate areas.

The reader can also be switched to preset the colour cones which are adjusted by control signal within the **printing** machine itself (1).

ADVANTAGE - Reader scans plate area coverage and its **position** on cylinder, using register and colour zone adjustment from inside machine thus shortening preadjustment time.

(9pp

Abstract (Equivalent): EP 114957 B

Device on **printing** **presses** with remotely controllable ink zone adjustment devices (3,3.1) and a remotely controllable register pre-adjustment device forperipheral **lateral** and diagonal **register** characterised in that within the **printing** **press** (1) for sensing and **printing** plate (6) tensioned on the plate cylinder (5), a contrast reading device (4) is traversably arranged which is provided both for detecting register marks on the **printing** plate and a measuring or trigger mark on the plate cylinder (5) and also for sensing the ink releasing surfaces of the **printing** plate (6) and which is connected with a calculator unit (7) with corresponding storage units which is provided for comparison of desired and added values of signals from the contrast reading device (4) on travelling across the register marks and

the measuring or trigger marks, and which are processed therein to **setting** signals for the control of the register drives wherein the calculator unit (7) also has fed to it from the contrast reading device (4) the contrast values of the individual ink zone regions and which are transformed to positon signals for the control of the ink zone pre-adjustment (3). (11pp)

Abstract (Equivalent): US 4553478 A

The system uses digitally-driven optical scanners axially traversing the plate cylinders under control of a t least one numerical computer. Machine-specific characteristics are programmed in non-volatile memory as referenced values. Data processing is not required to be conducted external to the **printing** machine. The machine operator enters coordinates for **printing** areas on the **printing** plate in order tospeed up the scanning process for determining the initial colour zone preset.

The scannermulti-functionally scans theprinting plate for both register adjustment and for integrating the ratio of **printing** to non-**printing** area for each inking zone. The system is easily reprogrammed and the optical scanner is interchangeable with a densitometer in order to provide alternative control dunctions during printingsuch as the regulation of inking and dampening.

USE/ADVANTAGE - Reduces **set** -up time on rotary **printing** machine. (23pp)

Title Terms: REGISTER; CONTROL; **PRINT** ; **PRESS** ; CONTRAST; MONITOR; BUILD; **PRESS** ; ROTATING; **PRINT** ; **PRESS** ; COLOUR; OVERLAY

Derwent Class: P74; S06

International Patent Class (Additional): B41F-005/06; B41F-033/10

File Segment: EPI; EngPI

Manual Codes (EPI/S-X): S06-C03

19/9/16 (Item 1 from file: 347)

DIALOG(R)File 347:JAPIO

07938070 **Image available**

DEVICE FOR ADJUSTING **LATERAL** **REGISTRATION** TO BE USED FOR **PRINTING** APPARATUS OF ROTARY **PRESS**

PUB. NO.: 2004-050829 [JP 2004050829 A]
PUBLISHED: February 19, 2004 (20040219)
INVENTOR(s): KERSCH ROBERT
PETERSEN GODBER
APPLICANT(s): MAN ROLAND DRUCKMAS AG
APPL. NO.: 2003-158439 [JP 2003158439]
FILED: June 03, 2003 (20030603)
PRIORITY: 02 10232026 [DE 10232026], DE (Germany), July 16, 2002 (20020716)
INTL CLASS: B41F-033/14

ABSTRACT

PROBLEM TO BE SOLVED: To provide a device for adjusting **lateral** **registration** to be used for the **printing** apparatus of a rotary **press** , which excels in correctness regardless of its simple structure and enables fast and comparatively large movement of a plate cylinder in an axis direction for releasing connection.

SOLUTION: A working cylinder 30 to be operated with a **pressure** medium is used to arrange a bearing stand 17 to move back and forth freely in the axis direction. For registering laterally, the bearing stand 17 is allowed to be **pressed** against a freely adjustable stopper 35 with the working

cylinder 30. The bearing stand 17 is **positioned** on the stopper 35 without any play using the adjusting **pressure** of the working cylinder 30 in the adjusting direction 27. The 1position of the stopper 35 in the axis direction is made open loop controllable and/or close loop controllable with control sections 43, 44 connected to at least one optical scanning system 15, 16 scanning a web paper 13.

19/9/17 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO

05817314 **Image available**
METHOD FOR REGISTERING IN INK JET **PRINTER** AND DEVICE THEREOF

PUB. NO.: 10-100414 [JP 10100414 A]
PUBLISHED: April 21, 1998 (19980421)
INVENTOR(s): IZAWA HIDEO
SHIRAI KOKICHI
KATAGIRI YASUSHI
KAWAMURA MASATAKA
APPLICANT(s): MIYAKOSHI KK [368533] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 08-260719 [JP 96260719]
FILED: October 01, 1996 (19961001)
INTL CLASS: [6] B41J-002/13; B41J-003/54; B41J-019/18
JAPIO CLASS: 29.4 (PRECISION INSTRUMENTS -- Business Machines)
JAPIO KEYWORD:R105 (INFORMATION PROCESSING -- Ink Jet **Printers**)

ABSTRACT
PROBLEM TO BE SOLVED: To **register** in **lateral** and vertical directions in a short time without generating lots of waste papers.
SOLUTION: Different discrimination patterns each having its own pattern are **printed** on a rotary **press** paper by a plurality of respective **print** heads 2. Each discrimination pattern is read by an imaging device 3. A main control device recognizes a **print position** of each discrimination pattern as a coordinate with respect to a reference point in lateral and vertical directions which is **set** beforehand. The recognized result is inputted to a register controlling device 8 wherein a **position** relationship with respect to the reference point of each discrimination pattern is **set** beforehand. The register controlling device 8 compares the input coordinate of each discrimination pattern with the **position** relationship with respect to the reference point of each discrimination and it transmits a difference signal in the lateral direction to a lateral moving device 10 that moves each **print** head in the lateral direction and a difference signal in the vertical direction to an ink jet **printing** system 9.

19/9/18 (Item 3 from file: 347)
DIALOG(R)File 347:JAPIO

05387906 **Image available**
NEEDLE DEVICE FOR PAPER SHEET **PRINTING** MACHINE

PUB. NO.: 09-002706 [JP 9002706 A]
PUBLISHED: January 07, 1997 (19970107)

INVENTOR(s): TOMITA MINORU
APPLICANT(s): KOMORI CORP [325078] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 07-155846 [JP 95155846]
FILED: June 22, 1995 (19950622)
INTL CLASS: [6] B65H-009/04; B41F-021/14
JAPIO CLASS: 26.9 (TRANSPORTATION -- Other); 29.4 (PRECISION INSTRUMENTS -- Business Machines)

ABSTRACT

PURPOSE: To improve the working efficiency by providing a **lateral registering** piece so that it can adjustably freely move in the perspective direction to a point of contact of holding members in a case where a paper sheet is held by a pair of holding members and the paper sheet is tensed up in the crosswise direction to be allowed to abut on the **lateral registering** piece in order for the end of the paper sheet to be registered.

CONSTITUTION: Prior to the **printing** work, first bolts 24, 26 are loosened to move respective blocks 23, 25 together with a needle device along a square stay 2, and after fine adjustment by a fine adjustment device 27, the whole needle device is **positioned** and fixed. Then, when the paper feeding is begun, a paper receiving roller 5 is turned back and forth in the direction A-B, a cam lever 8 is turned back and forth, and a roller arm 7 which allowed a bolt to abut on the cam lever 8 by force of a compression coil spring 10 is integrally oscillated. Thus, as a **pressure** roller 9 is raised or lowered so that it moves toward or moves apart from the paper receiving roller 5, a paper sheet 15 is held by the rollers 5, 9 to go to the left, and the side end edge of the paper sheet is allowed to abut on the gauge surface 16a of the **lateral registering** piece 16 to be registered.

19/9/19 (Item 4 from file: 347)

02327945 **Image available**
LATERAL POSITION REGISTERING DEVICE OF OFFSET **PRESS** FOR SHEET

PUB. NO.: 62-244845 [JP 62244845 A]
PUBLISHED: October 26, 1987 (19871026)
INVENTOR(s): UEDA NORIYUKI
APPLICANT(s): TOKYO KOKU KEIKI KK [323851] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 61-086302 [JP 8686302]
FILED: April 15, 1986 (19860415)
INTL CLASS: [4] B65H-009/10; B41F-021/14
JAPIO CLASS: 26.9 (TRANSPORTATION -- Other); 29.4 (PRECISION INSTRUMENTS -- Business Machines)
JOURNAL: Section: M, Section No. 685, Vol. 12, No. 120, Pg. 1, April 14, 1988 (19880414)

ABSTRACT

PURPOSE: To prevent the generation of a skew or a wrinkle by interposingly holding a sheet of **printing** paper with a belt which is moved at a speed equal to conveyance, **pressing** said paper against a limit block prior to an interposingly holding action to carry out **positioning** , and releasing said paper before its end arrives at a feed roller.

CONSTITUTION: When a sheet of **printing** paper 1 is **placed** on the catch table 5 of a downside conveying belt 3 which is moved at an equal speed, an unshown push belt is moved so as to push the end face of the **printing** paper 1. In this case, the push belt is also moved at the speed equal to the **printed** paper 1. And, at the point of time when the other end of the **printing** paper 1 is **pressed** against the limit block part of the downside catch table 5, an upside catch table 6 is engaged with the downside catch table 5, to interposingly hold the **printing** paper 1. As the **printing** paper 1 is further advance and, right before it arrives at feed rollers 8, 9, the push belt is retracted from the end face of the **printing** paper 1. Thereby, the sheet of **printing** paper 1 can be introduced to the feed rollers 8, 9 in a flat condition, preventing the generation of a skew or a wrinkle.

02016837 **Image available**
GRAVURE PROOF **PRESS**

PUB. NO.: 61-230937 [JP 61230937 A]
PUBLISHED: October 15, 1986 (19861015)
INVENTOR(s): NORO YUTAKA
NORO SHIRO
SAKURADA SHINPEI
APPLICANT(s): NISSHO GURABIA KK [000000] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 60-072440 [JP 8572440]
FILED: April 05, 1985 (19850405)
INTL CLASS: [4] B41F-009/04; B41F-009/18; B41F-013/24
JAPIO CLASS: 29.4 (PRECISION INSTRUMENTS -- Business Machines)
JOURNAL: Section: M, Section No. 569, Vol. 11, No. 76, Pg. 12, March 07, 1987 (19870307)

ABSTRACT

PURPOSE: To enable the same **printing** as production-run and to make it possible to perform proofreading, by arranging the plate cylinders of a gravure **printing** plate to a pair of rotary discs supported by bearings at equal intervals on the same radii around the shaft of said discs in a replaceable manner and providing an impression cylinder in opposed relation to either one of said plate cylinders so as to be capable of being contacted with and separated from said plate cylinders to **set** a web to said impression cylinder.

CONSTITUTION: One clamping shafts 13a are drawn out in matching relation to the width of plate cylinders 12 to be tightly clamped by fixing metal fittings 20 and one ends of plate cylinders 12 are contacted with said shafts 13a and other clamping shafts 13 are advanced by cylinders 15 to clamp the plate cylinders 12. The register scopes 59 provided to frames 1 and having been escaped are allowed to correspond to the plate cylinders 12 to perform registering. The **registering** in the **lateral** direction is performed by handles 19 threaded with the collars 11 provided to the sides of the clamp shafts and the registering in the longitudinal direction is performed by pushing the pins from cores 23 by the bolts threaded with the registering collars 22 fixed to the clamp shafts to perform minute adjustment. After this registering was finished with respect to all of plate cylinders, an impression cylinder 39 having a blanket wound therearound is **placed** on the plate cylinder by a cylinder 44 so as to

correspond to either one of the plate cylinders.
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